CDX-MP450X

SERVICE MANUAL

US Model

Ver 1.0 2001. 02

• The tuner and CD sections have no adjustments.

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
19 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 1% total harmonic distortion.

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-383KU-121//K
Optical Pick-up Name	KSS-720A

SPECIFICATIONS

CD player section

System	Compact disc digital audio system
Signal-to-noise ratio	90 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit
Laser Diode Properties	
Material	GaAlAs
Wavelength	780 nm
Emission Duration	Continuous
Laser output power	Less than 44.6 µW*

* *This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.*

Tuner section

FM

Tuning range	87.5 – 107.9 MHz
Antenna terminal	External Antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	0.7% (stereo), 0.4% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External Antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	50 W × 4 (at 4 ohms)

General

Outputs	Audio outputs (front/rear) Power Antenna relay control lead Power amplifier control lead
Inputs	Telephone ATT control lead Antenna input connector Remote controller input connector
Tone controls	Bass ±9 dB at 100 Hz Treble ±9 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 183 mm (7 1/8 × 2 × 7 1/4 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 162 mm (7 1/4 × 2 1/8 × 6 1/2 in.) (w/h/d)
Mass	Approx. 1.3 kg (2 lb. 10 oz.)
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1) Card remote commander RM-X114

Design and specifications are subject to change without notice.

FM/AM COMPACT DISC PLAYER

9-870-292-11
2001B0400-1
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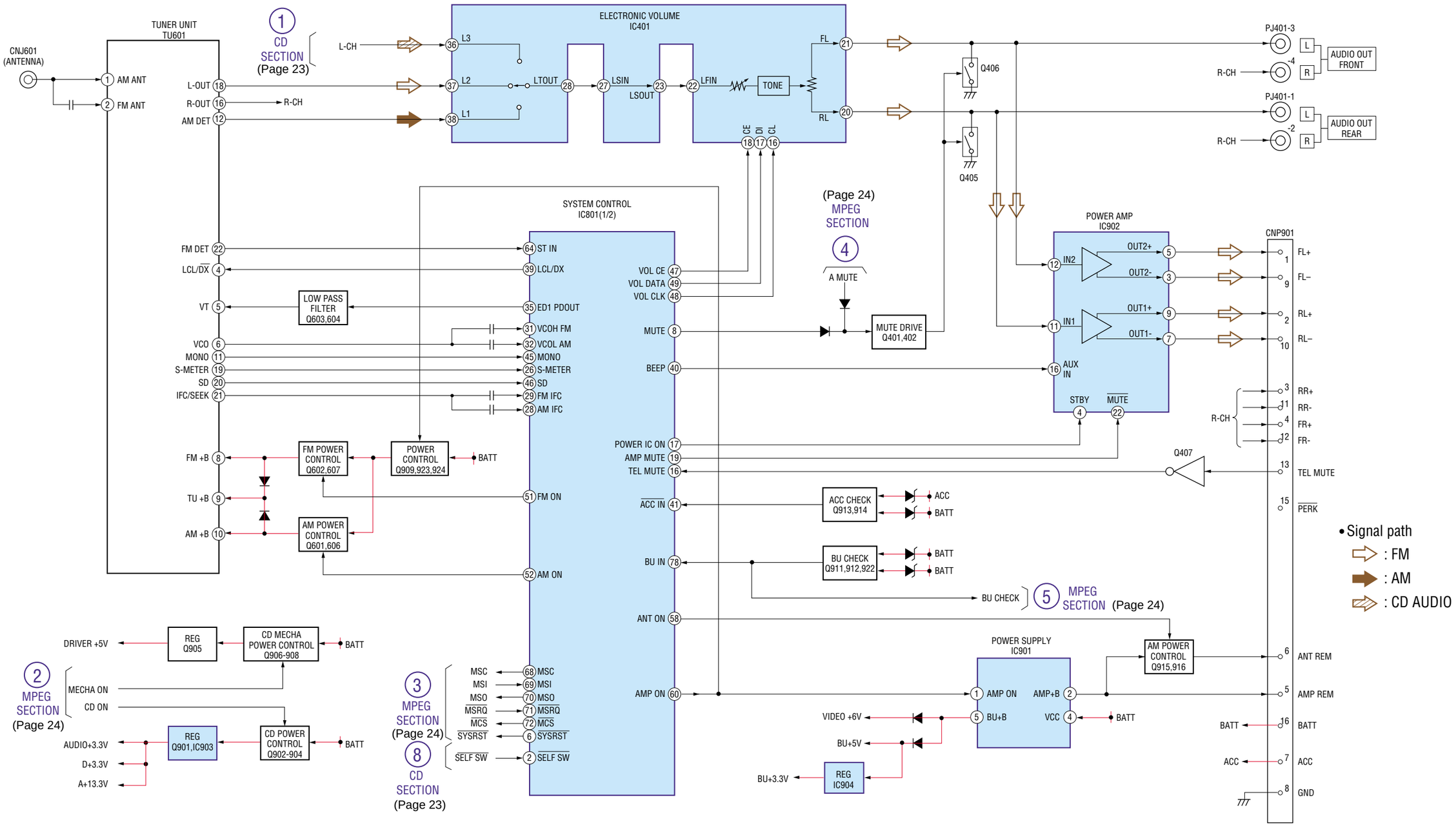
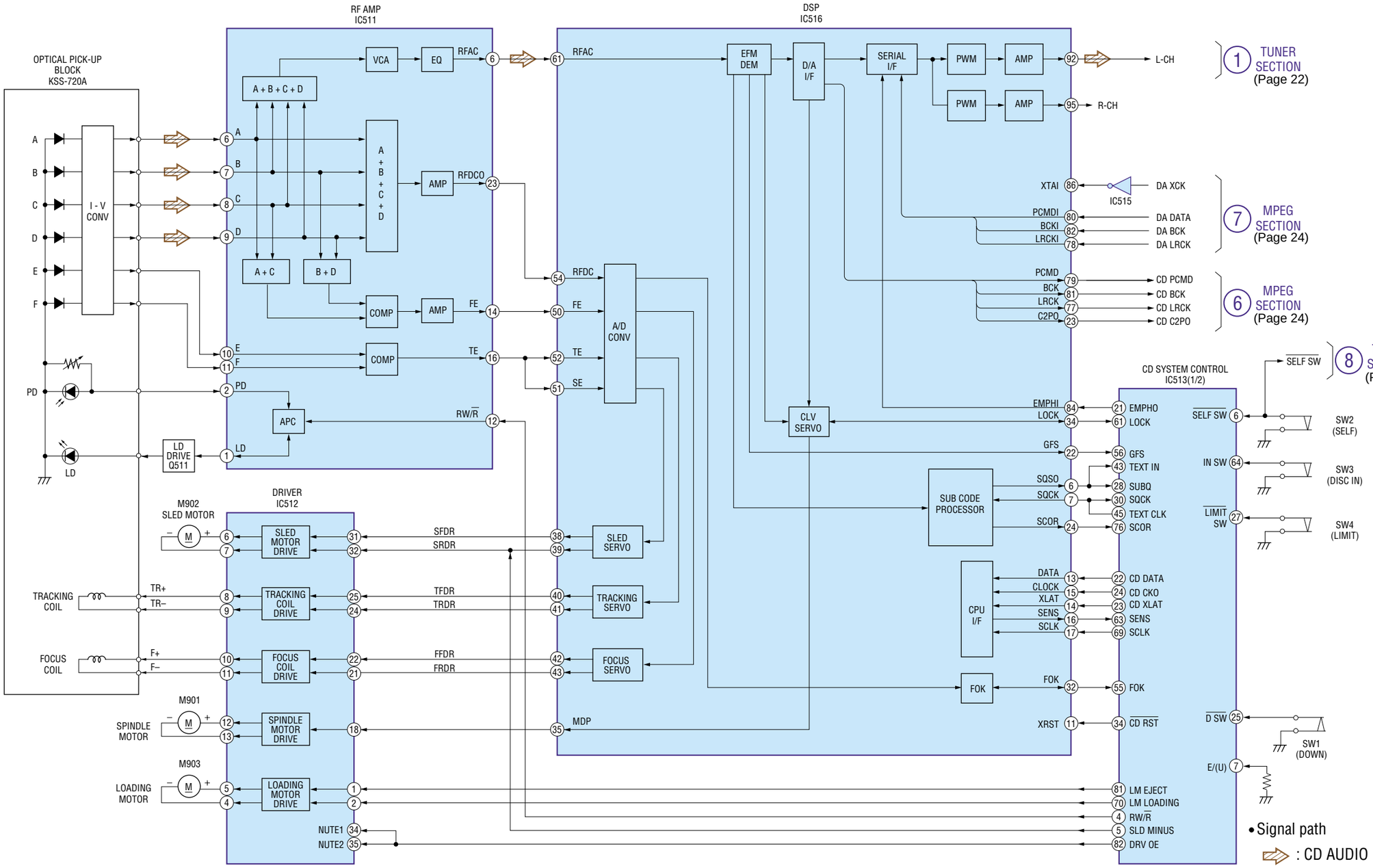
Sony Corporation
Audio Entertainment Group
General Engineering Dept.

SONY®

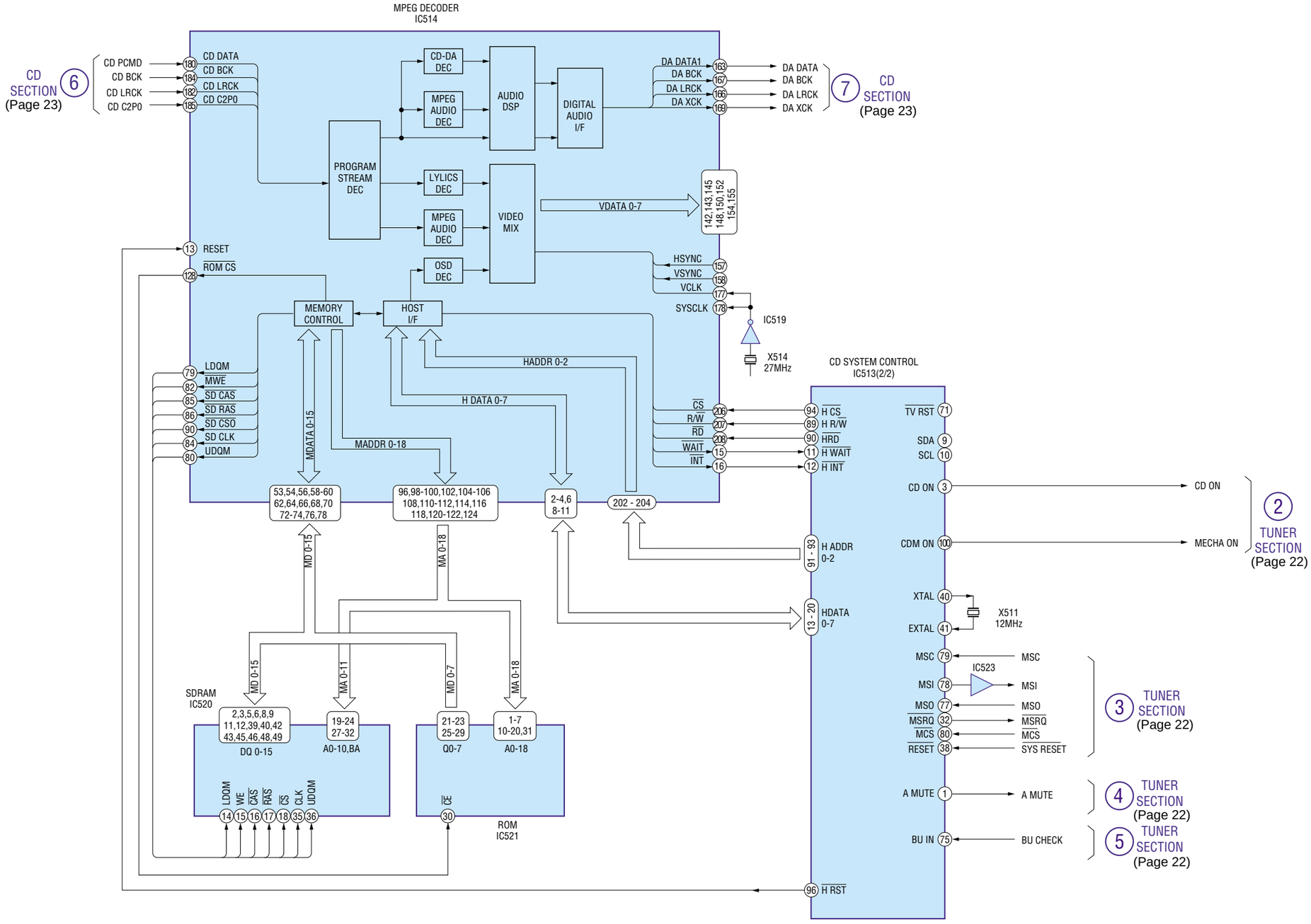
3-2. BLOCK DIAGRAM — TUNER SECTION —



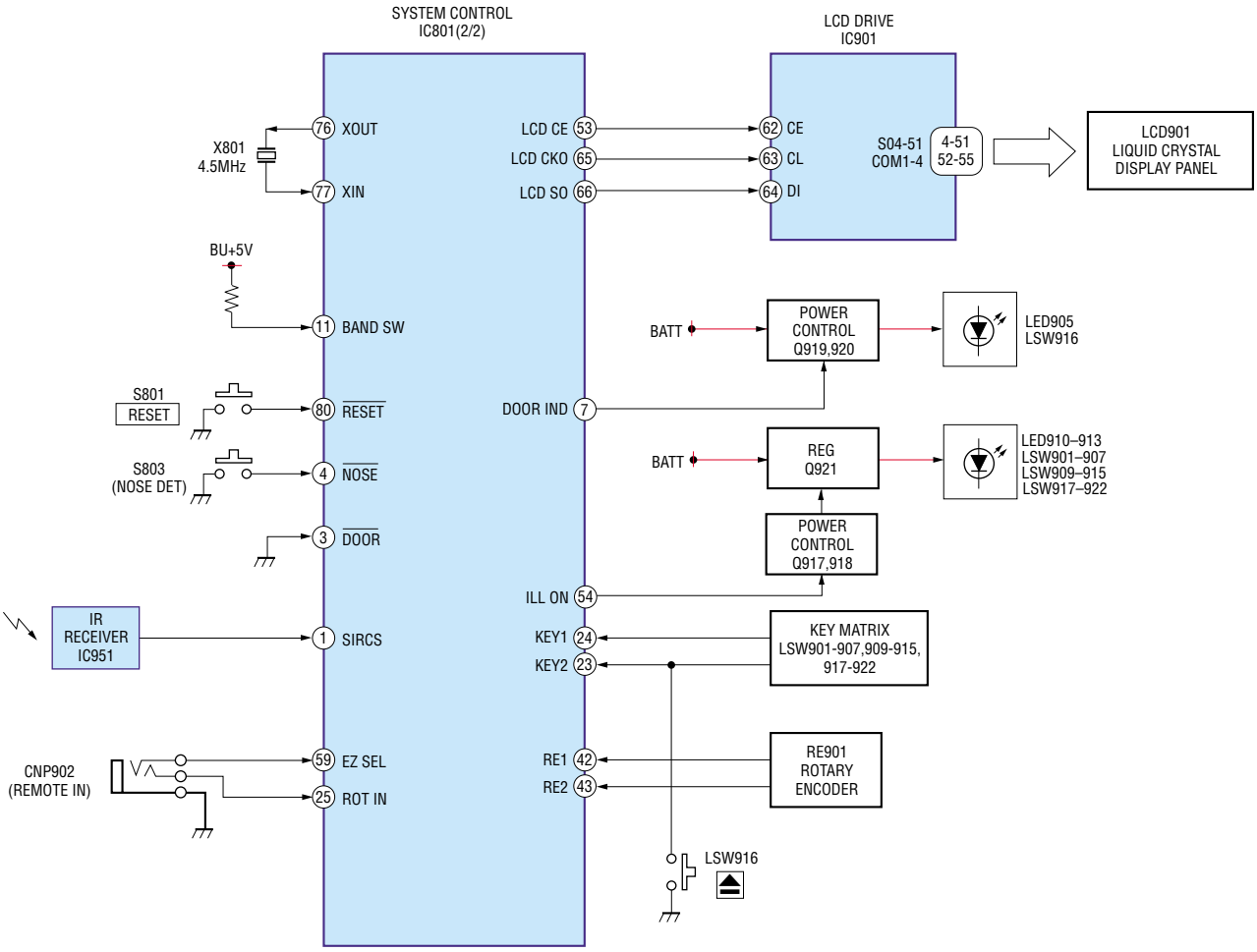
3-3. BLOCK DIAGRAM — CD SECTION —



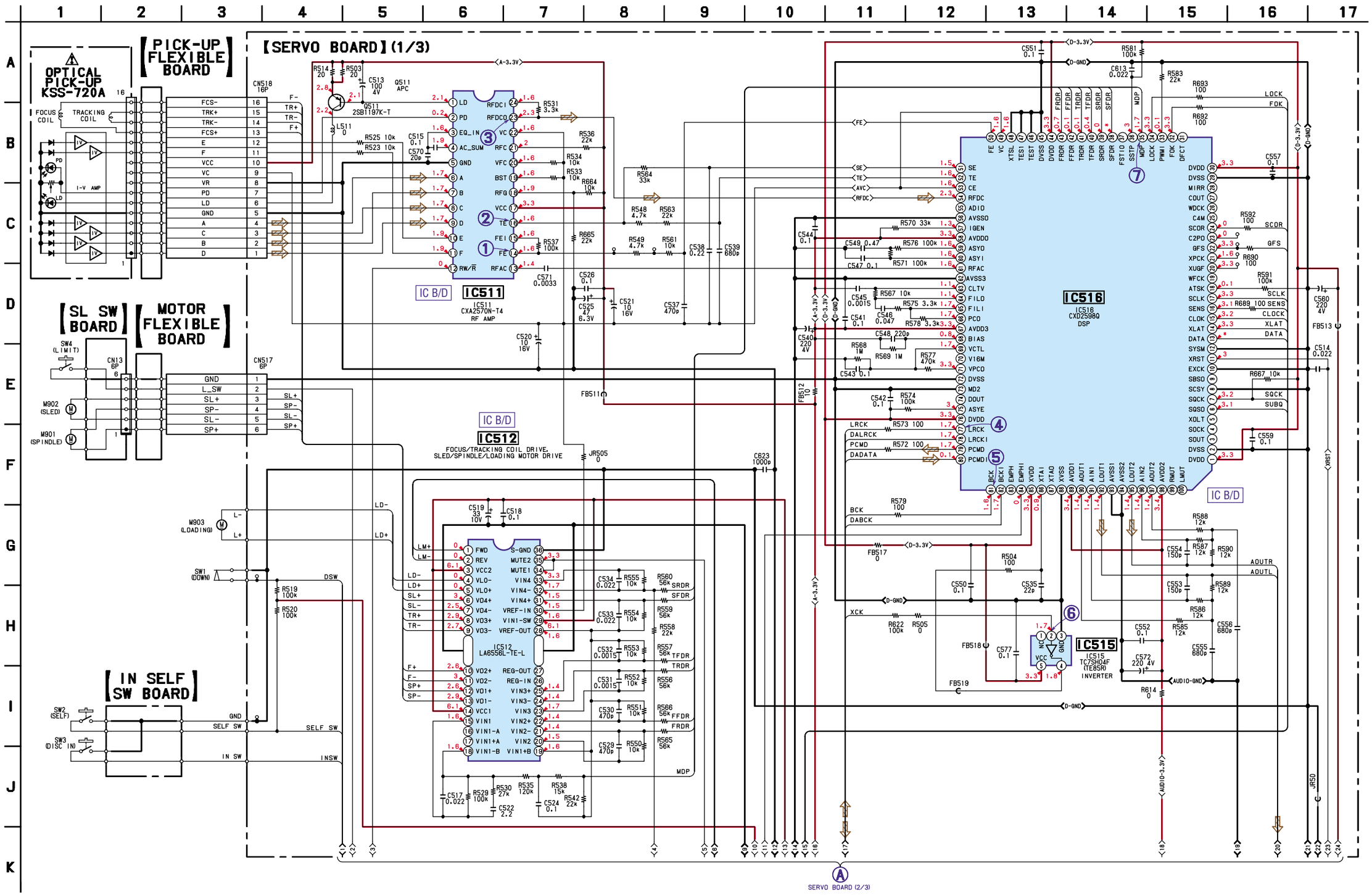
3-4. BLOCK DIAGRAM — MPEG SECTION —



3-5. BLOCK DIAGRAM — DISPLAY SECTION —



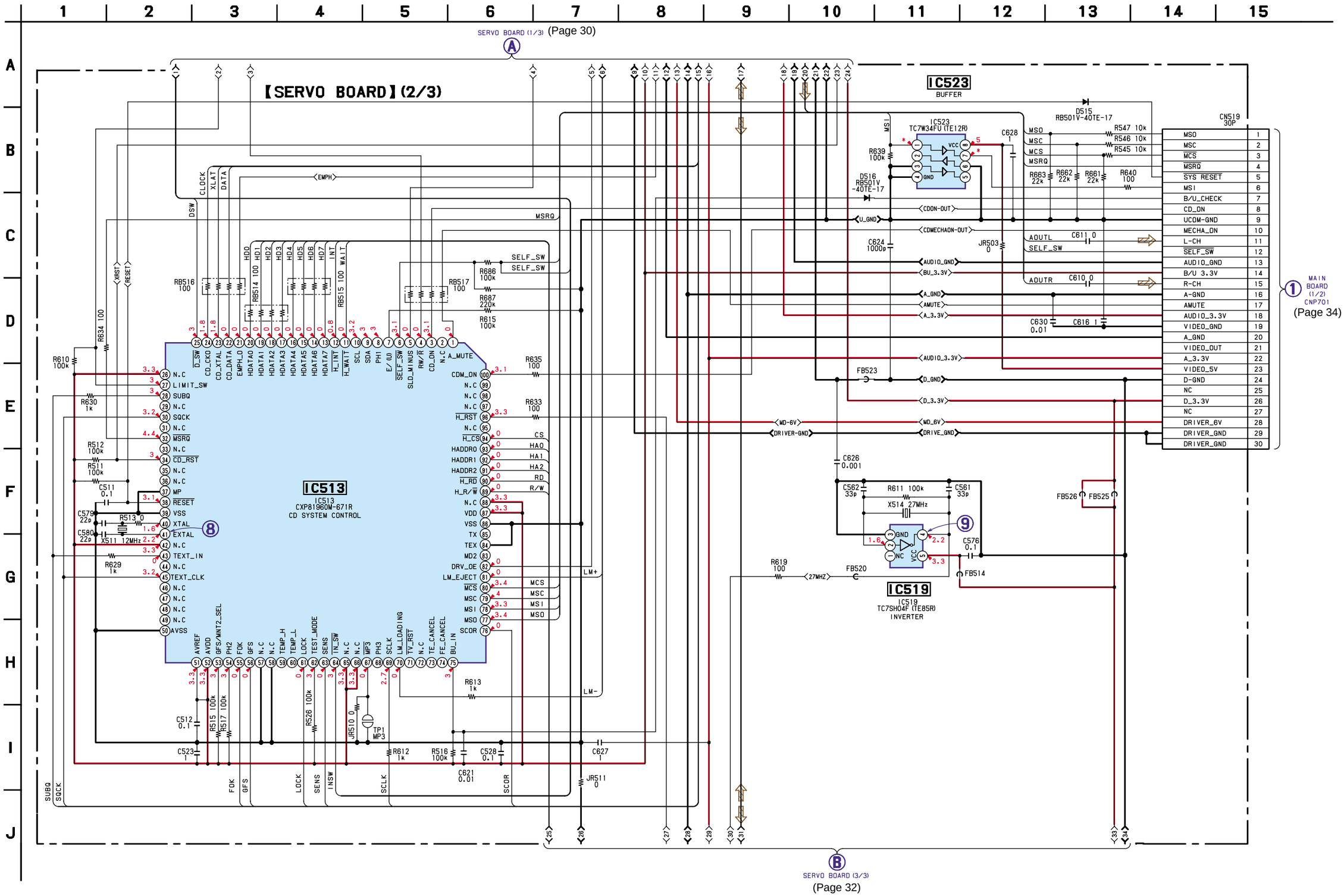
3-8. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/3) — • Refer to page 27 for Waveforms. • Refer to page 40 for IC Block Diagrams.



Note:

- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
  ＊ : Impossible to measure

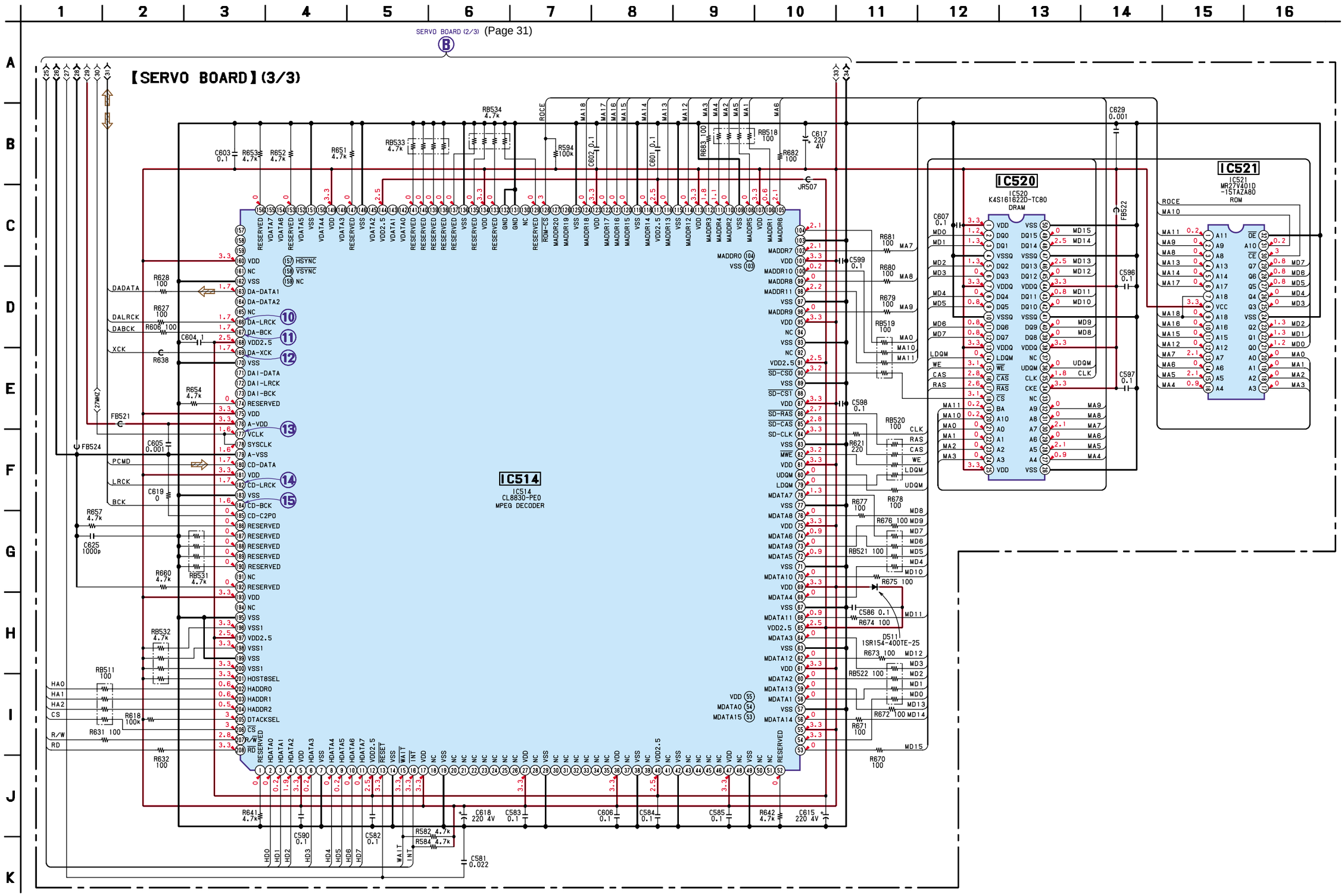
3-9. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/3) — • Refer to page 27 for Waveforms. • Refer to page 40 for IC Block Diagrams.



Note:

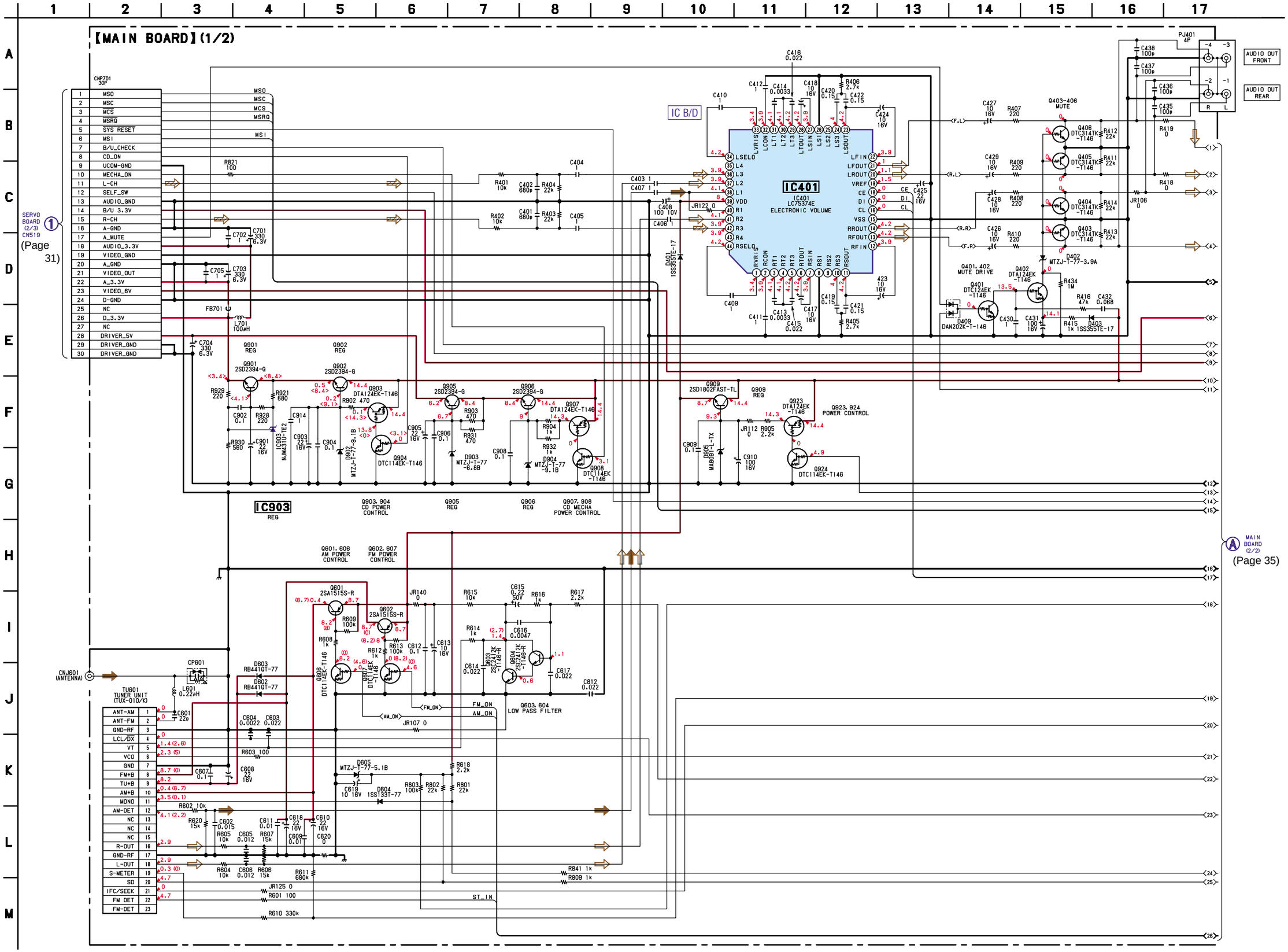
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
  ＊ : Impossible to measure

3-10. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (3/3) — • Refer to page 27 for Waveforms.



Note:
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY

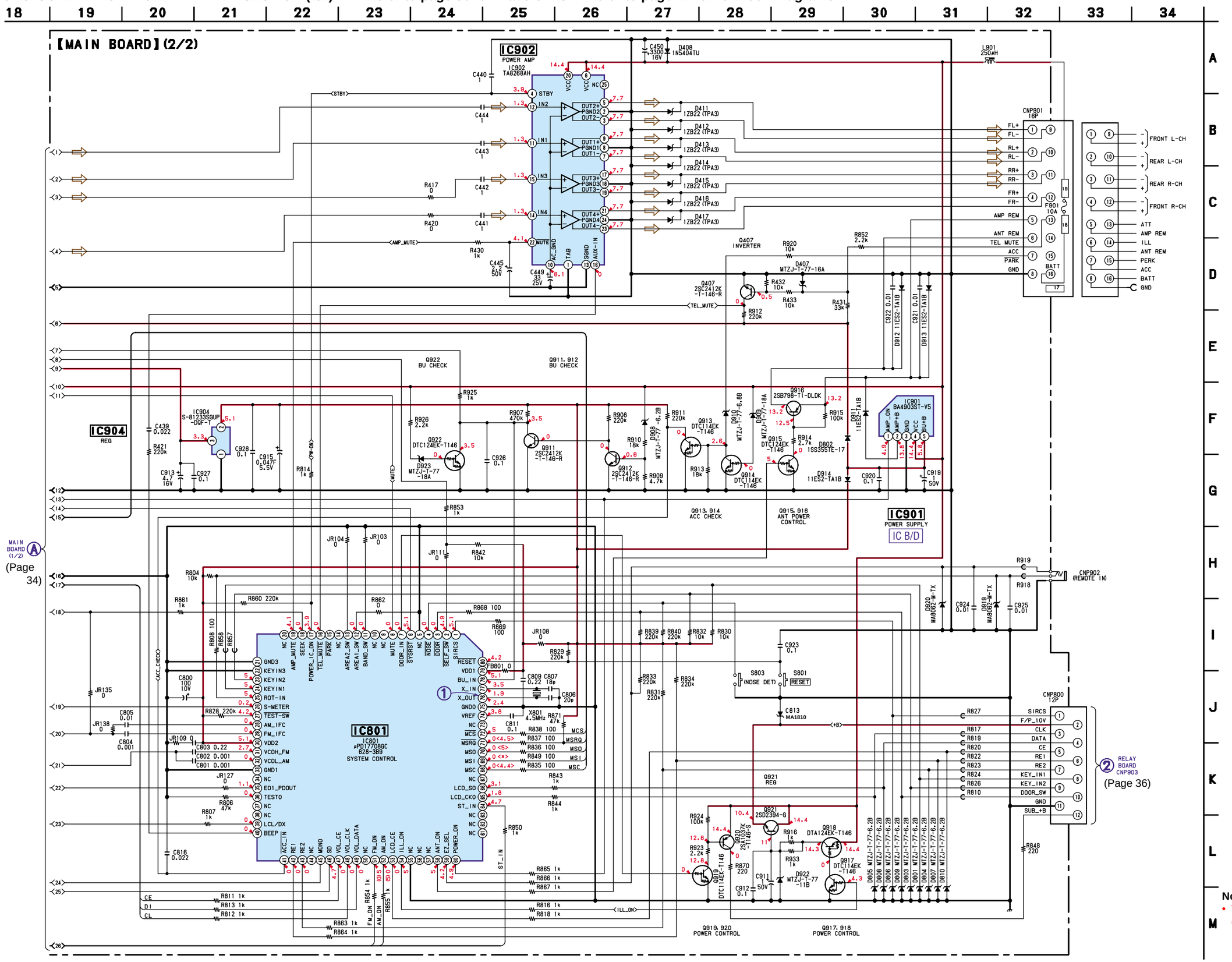
3-12. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) — • Refer to page 40 for IC Block Diagrams.



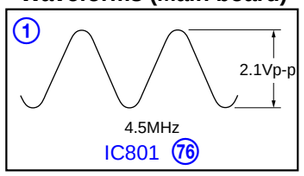
Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : AM
  < > : CD PLAY

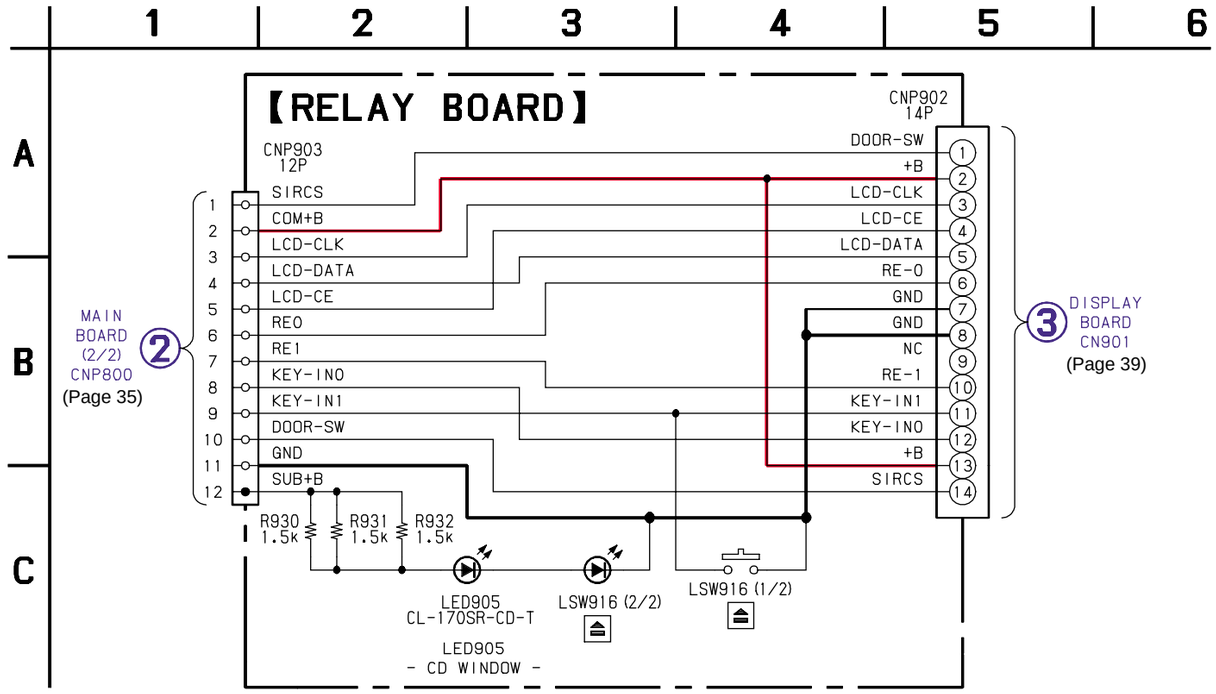
3-13. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) — • Refer to page 36 for Waveforms. • Refer to page 41 for IC Block Diagrams.



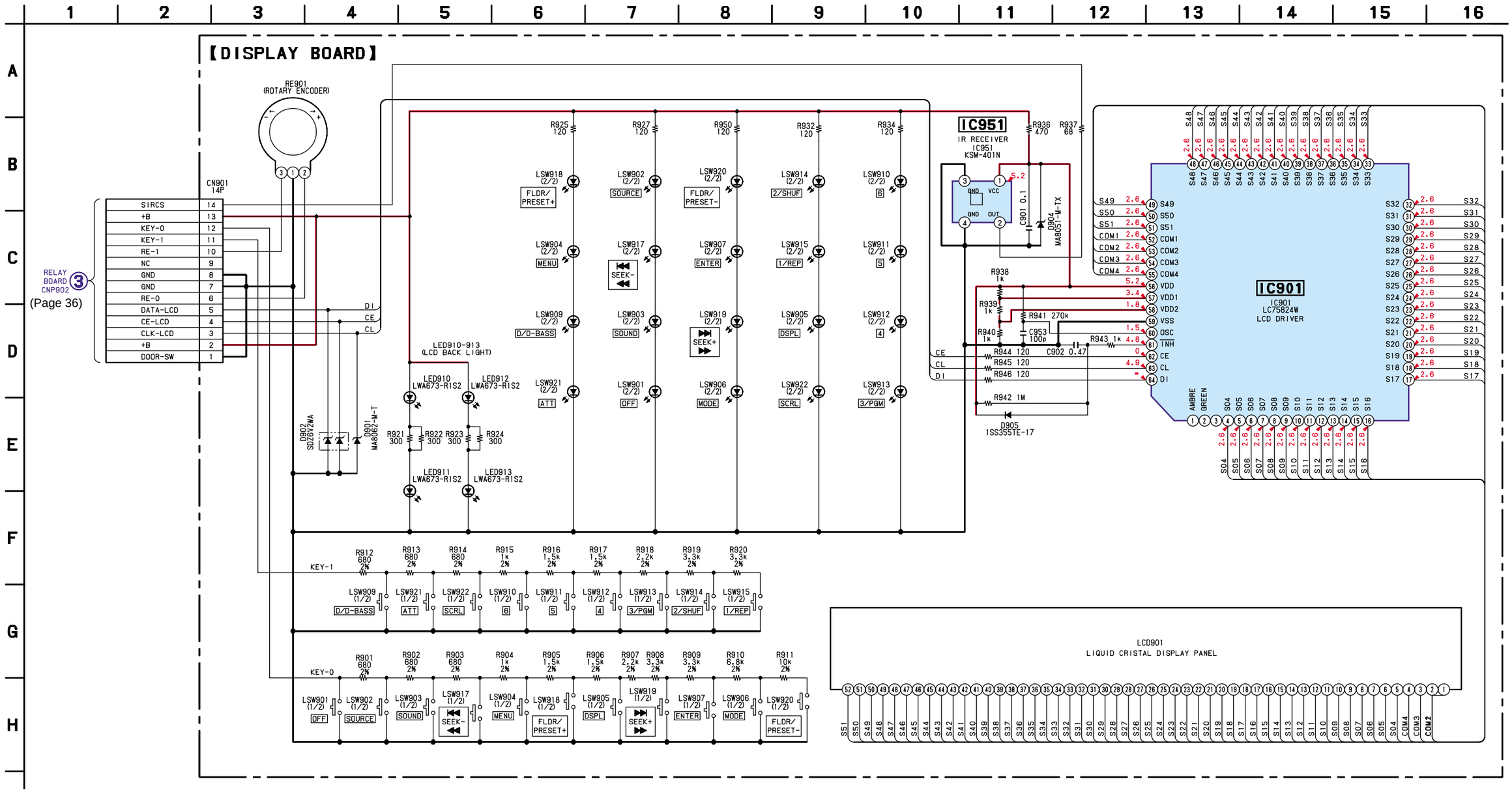
• Waveforms (Main board)



3-14. SCHEMATIC DIAGRAM — RELAY SECTION —



3-17. SCHEMATIC DIAGRAM — DISPLAY SECTION —



Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM